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## **9.7 EMERGENCY EPISODE AVOIDANCE PLAN**

### **9.7.1 Purpose**

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The Emergency Episode Avoidance Plan (EEAP) fulfills the requirements of 40 CFR Part 51 which seeks to prevent high ambient concentrations of air pollutants from reaching levels that may endanger public health and welfare. The objective of the EEAP is to control sources within state jurisdiction (excluding Indian Country) during periods when meteorological conditions are not adequate to prevent high ambient concentrations of air pollutants. Planning for air pollutant emergency episodes assures that source emissions reduction is conducted in a well-structured manner with minimum inconvenience to the sources and general public.

The EEAP is designed to address the emergency control of particulate matter with an aerodynamic diameter of 10 microns and less (PM-10), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>) and ozone (O<sub>3</sub>) caused by human or natural causes in any situation. Montana currently has no Air Quality Control Regions (AQCRs) classified as Priority I or II for these pollutants (based on the last three years of monitoring data). However, historical ambient air monitoring data collected prior to 2000 includes concentration levels of SO<sub>2</sub>, CO, and PM-10 sufficient to classify some Montana AQCRs as Priority I or II. See Table 9.7.2.A. Some years, Montana experiences exceedances of the PM-10 National Ambient Air Quality Standard (NAAQS) as a result of wildfires, such as occurred in 2000. However, exceedances caused by natural events are not included for purposes of determining priority classifications pursuant to 40 CFR Part 51.150. Additionally, Montana has no history of exceeding air pollutant emergency episode concentrations for NO<sub>2</sub> or O<sub>3</sub>.

The Montana Department of Environmental Quality (Department) authority to implement the EEAP is set forth at §75-2-402, MCA, "Emergency Powers."

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### 9.7.2 Area Classification

The Department classified each AQCR according to ambient concentrations of pollutants as outlined in 40 CFR §51.150. Table 9.7.2.B illustrates the pollutant priority classification concentrations. Each AQCR is classified separately with respect to each of the following pollutants: SO<sub>2</sub>, PM-10, CO, NO<sub>2</sub>, and O<sub>3</sub>. Pursuant to 40 CFR §51.153 Reevaluation of Episode Plans, Montana's current pollutant priority classifications are based upon the most recent three years of ambient air monitoring data (2000, 2001, and 2002). Table 9.7.2.C illustrates Montana's AQCR pollutant priority classifications based upon the concentration levels set forth in Table 9.7.2.B. An area monitor must record at least one measurement within the concentration levels to be classified as Priority I or II.

The following units of measurement are used to describe (1) PM-10: "µg/m<sup>3</sup>" means micrograms (one-millionth of a gram) per cubic meter; (2) SO<sub>2</sub>, NO<sub>2</sub>, and O<sub>3</sub>: "ppm" means parts per million; and (3) CO: "mg/m<sup>3</sup>" means milligrams (one-thousandth of a gram) per cubic meter.

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**TABLE 9.7.2.A**

**COUNTIES ENCOMPASSED BY EACH MONTANA AQCR**

<b>Billings AQCR 140 REGION V Southcentral Montana – 40 CFR 81.88:</b> Big Horn; Carbon; Fergus; Golden Valley; Judith Basin; Musselshell; Petroleum; Stillwater; Sweet Grass; Wheatland; and Yellowstone.
<b>Great Falls AQCR 141 REGION II Central Montana – 40 CFR 81.168:</b> Blaine; Cascade; Chouteau; Glacier; Hill; Liberty; Pondera; Teton; and Toole.
<b>Helena AQCR 142 REGION IV Southwestern Montana – 40 CFR 81.169:</b> Beaverhead; Broadwater; Deer Lodge; Gallatin; Granite; Jefferson; Lewis & Clark; Madison; Meagher; Park; Powell; and Butte - Silver Bow.
<b>Miles City AQCR 143 REGION III Eastern Montana – 40 CFR 81.170:</b> Carter; Custer; Daniels; Dawson; Fallon; Garfield; McCone; Phillips; Powder River; Prairie; Richland; Roosevelt; Rosebud; Sheridan; Treasure; Valley; and Wibaux.
<b>Missoula AQCR 144 REGION 1 Northwestern Montana – 40 CFR 81.171:</b> Flathead; Lake; Lincoln; Mineral; Missoula; Ravalli; and Sanders.

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**TABLE 9.7.2.B**

**POLLUTANT PRIORITY CLASSIFICATION**

CLASSIFICATION	POLLUTANT	CONCENTRATION LEVELS
<b>PRIORITY I</b> Means any area with greater ambient concentrations than the following:	Sulfur Dioxide	<u>Annual Arithmetic Mean:</u> > 0.04 ppm (100 µg/m <sup>3</sup> ) - OR - <u>24-Hour Maximum:</u> > 0.17 ppm (455 µg/m <sup>3</sup> )
	Particulate Matter: PM-10	<u>Annual Geometric Mean:</u> > 95 ug/m <sup>3</sup> - OR - <u>24-Hour Maximum:</u> > 325 ug/m <sup>3</sup>
	Carbon Monoxide	<u>8-Hour Maximum:</u> >12 ppm (14 mg/m <sup>3</sup> ) - OR - <u>1-Hour Maximum:</u> > 48 ppm (55 mg/m <sup>3</sup> )
	Nitrogen Dioxide	<u>Annual Arithmetic Mean:</u> > 0.06 ppm (100 µg/m <sup>3</sup> )
	Ozone	<u>1-Hour Maximum:</u> > 0.10 ppm (195 µg/m <sup>3</sup> )
<b>PRIORITY IA</b> Means any area that is Priority I primarily due to emissions from a single point source.	Priority I Pollutants	All Priority I Concentrations
<b>PRIORITY II</b> Means any area that is not a Priority I region and has ambient concentrations between the following:	Sulfur Dioxide	<u>Annual Arithmetic Mean:</u> 0.02 - 0.04 ppm (60 – 100 µg/m <sup>3</sup> ) <u>24-Hour Maximum:</u> 0.10 - 0.17 ppm (260 – 445 µg/m <sup>3</sup> ) <u>3-Hour Maximum:</u> > 0.50 ppm (> 1,300 µg/m <sup>3</sup> )
	Particulate Matter: PM-10	<u>Annual Geometric Mean:</u> 60 - 95 ug/m <sup>3</sup> <u>24-Hour Maximum:</u> 150 - 325 ug/m <sup>3</sup>
<b>PRIORITY III</b>	Priority I and II Pollutants	

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CLASSIFICATION	POLLUTANT	CONCENTRATION LEVELS
Means areas which do not meet or exceed the above ambient concentration levels.		All Concentrations below Priority I and II levels

**TABLE 9.7.2.C**

**MONTANA AQCR POLLUTANT PRIORITY CLASSIFICATIONS\***

AQCR	Sulfur Dioxide (SO <sub>2</sub> )	Carbon Monoxide (CO)	Particulate Matter (PM-10)	Nitrogen Dioxide (NO <sub>2</sub> )	Ozone (O <sub>3</sub> )
140 - Billings	III	III	III	III	III
141 - Great Falls	III	III	III	III	III
142 - Helena	III	III	III	III	III
143 - Miles City	III	III	III	III	III
144 - Missoula	III	III	III	III	III

\* Based upon 2000, 2001, and 2002 Aerometric Information Retrieval System (AIRS) reports.

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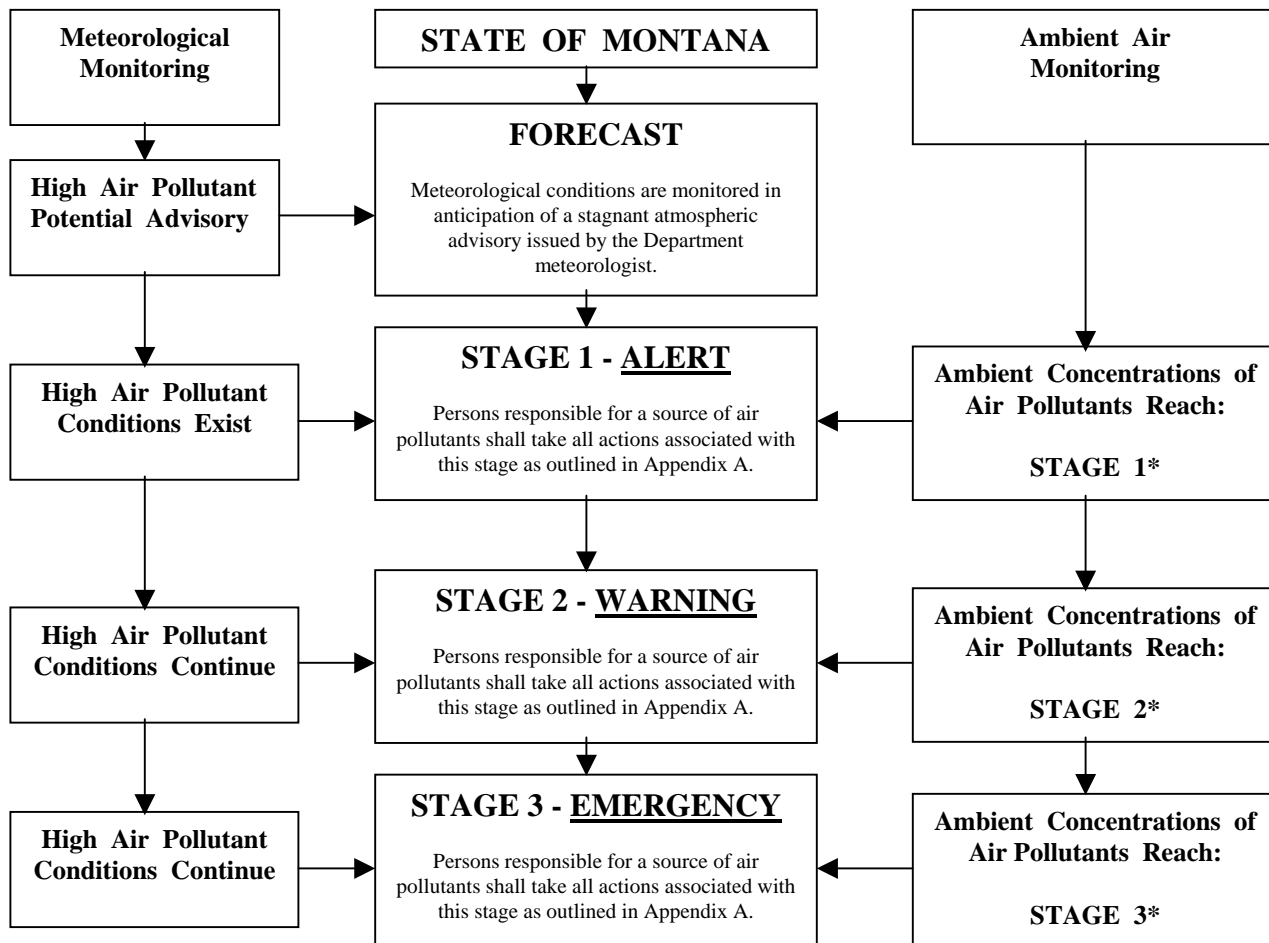
### 9.7.3 Episode Prevention Action Stages

The Department reviewed the last three years of ambient air monitoring data to determine AQCR pollutant priority classifications. All AQCRs are Priority III for all pollutants. Although the Priority III classification exempts Montana from developing an EEAP for these pollutants, the Department addresses SO<sub>2</sub>, PM-10, and CO due to their historic Priority I and II classifications. Pursuant to 40 CFR §51.151 and §51.152, the Department adopted ambient concentration levels for three emergency episode action stages that will be followed in the event of an air pollution emergency episode. Each action stage is associated with a pre-determined air pollutant concentration threshold for PM-10, CO, and SO<sub>2</sub>. Conditions of poor air quality need not be AQCR-wide to trigger an emergency episode action stage.

Pursuant to 75-2-402, MCA, “Emergency Powers,” when ambient concentrations of air pollutants exceed a threshold, the Department shall implement required control actions. The ambient concentration values for SO<sub>2</sub>, PM-10, and CO action stages are set forth consistently with 40 CFR Part 51, Appendix L. For each action stage, a detailed explanation of EEAP control activities is outlined in Appendix A. These action stages are illustrated in Figure 9.7.3, followed by an explanation of each air pollutant concentration threshold.

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**\*Termination:** Once an emergency episode action stage is declared, it will remain in force until the ambient concentration levels for that stage are no longer met. At such time, the next lower action stage will be commenced. This procedure will continue until high ambient concentrations of air pollutants decrease below threshold concentrations at which time the emergency actions terminate.

**FIGURE 9.7.3**

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### EMERGENCY EPISODE ACTION STAGES

- 1) **FORECAST:** The Department shall initiate an internal watch when the Department meteorologist identifies atmospheric stagnation conditions.
- 2) **STAGE 1 - ALERT:** The Department shall initiate Alert actions, as set forth in Appendix A, when ambient concentrations of air pollutants reach STAGE 1 levels . The Department shall declare a Stage 1 Alert when any of the following air pollutant concentration thresholds are reached at any monitoring site and meteorological conditions are such that pollutant concentrations can be expected to increase or remain at these levels for twelve (12) or more hours:  
  
SO<sub>2</sub>: 0.3 ppm (800 ug/m<sup>3</sup>) - 24-hour average;  
PM-10: 350 ug/m<sup>3</sup> - 24-hour average; or  
CO: 15 ppm (17 mg/m<sup>3</sup>) - 8-hour average.
- 3) **STAGE 2 - WARNING:** The Department shall initiate Warning actions, as set forth in Appendix A, when ambient concentrations of air pollutants reach STAGE 2 levels. A Stage 2 Warning indicates air quality is continuing to degrade and additional control actions are necessary. The Department shall declare a Stage 2 Warning when any of the following air pollutant concentration thresholds are reached at any monitoring site and meteorological conditions are such that pollutant concentrations can be expected to increase or remain at these levels for twelve (12) or more hours:  
  
SO<sub>2</sub>: 0.6 ppm (1,600 ug/m<sup>3</sup>) - 24-hour average;  
PM-10: 420 ug/m<sup>3</sup> - 24-hour average; or  
CO: 30 ppm (34 mg/m<sup>3</sup>) - 8-hour average.
- 4) **STAGE 3 - EMERGENCY:** The Department shall initiate Emergency actions, as set forth in Appendix A, when ambient concentrations of air pollutants reach STAGE 3 levels. A Stage 3 Emergency indicates air quality is continuing to degrade toward levels that may cause significant harm to public health. The Department shall declare a Stage 3 Emergency when any of the following air pollutant concentration thresholds are reached at any monitoring site and meteorological conditions are such that pollutant

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concentrations can be expected to increase, or remain at these levels for twelve (12) or more hours:

SO<sub>2</sub>: 0.8 ppm (2,100 ug/m<sup>3</sup>) - 24-hour average;  
Particulate Matter PM-10: 500 ug/m<sup>3</sup> - 24-hour average; or  
CO: 40 ppm (46 mg/m<sup>3</sup>) - 8-hour average.

EPA has specified air pollutant concentration thresholds which should never be reached. Exposure to such air pollutant concentrations could be expected to result in 'significant harm' to public health. In general, a condition of 'imminent and substantial endangerment' would exist whenever an air pollutant concentration approaches a dangerous level or seems likely to result in significant harm. Imposing a Stage 1 Alert or Stage 2 Warning would lead to stringent emissions control activities. A Stage 3 Emergency would require even further emissions control activities to reduce the condition of imminent and substantial endangerment. Air pollutant concentrations considered to cause significant harm to public health are as follows:

SO<sub>2</sub>: 1.0 ppm (2,620 ug/m<sup>3</sup>) - 24-hour average;  
PM-10: 600 ug/m<sup>3</sup> - 24-hour average;  
CO: 50 ppm (57.5 mg/m<sup>3</sup>) - 8-hour average;  
75 ppm (86.3 mg/m<sup>3</sup>) - 4-hour average; or  
125 ppm (144 mg/m<sup>3</sup>) - 1-hour average.

The Department shall use the preceding ambient concentration levels to justify the declaration of a Stage 1 Alert, Stage 2 Warning, Stage 3 Emergency, or Termination.

These conditions shall be deemed to exist wherever the Department determines that high ambient concentrations of air pollutants may threaten public health. The Department shall determine a designated emergency episode area on a case-by-case basis without restriction to geographic scale. For example, a designated emergency episode area may be state-wide, county-wide, city-wide, or confined to a location where a source(s) has been determined to be responsible for the high ambient concentrations of air pollutants.

- 5) **TERMINATION:** Once the Department declares an emergency episode action stage, it will remain in force until the concentration levels for that stage is no longer met. At such

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time, the next lower action stage will be commenced. This procedure will continue until ambient concentrations of air pollutants decrease below threshold concentrations at which time the emergency actions terminate.

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#### 9.7.4 Emission Reduction Actions for Priority I AQCRs

The current year industrial source emission inventory is the basis for developing emissions control actions during an air pollutant emergency episode. The Department's EEAP outlined in Appendix A sets forth the general curtailment requirements and necessary actions for major source categories. The EEAP requires sources to take emissions control actions at each emergency episode action stage. Each major source emitting 100 tons per year or more of pollutants outlined in Table 9.7.2.B located in a Priority I AQCR is required to submit to the Department a legally enforceable industrial source EEAP. An industrial source EEAP must detail how the source will curtail emissions from pollutants outlined in Table 9.7.2.B during an air pollutant emergency episode in accordance with the Department's EEAP. The emergency emissions control actions shall be commensurate with the extent of the air pollutant emergency episode. For example, if the Department determines through observation, testing, or other methods, that a single source is responsible for causing high ambient concentrations of pollutants as outlined in Table 9.7.2.B, emergency emissions control actions shall be directed only to that source.

Table 9.7.4 illustrates the emergency emissions control actions the Department may order as various emergency episode action stages are reached. These emergency emission control actions should be implemented only following the Department's case-by-case review of each situation.

Internal combustion engines from automobiles are major contributors to ambient concentrations of CO, while re-entrained road dust generates a considerable amount of PM-10 emissions. Outdoor burning and fireplace/woodstove combustion also contribute to high particulate matter and CO concentration levels. The Department may restrict vehicle movements, outdoor burning, and fireplace/woodstove operation within an AQCR during an air pollutant emergency episode to reduce CO and/or PM-10 concentration levels.

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**TABLE 9.7.4**

**EMERGENCY EMISSIONS CONTROL ACTIONS FOR MAJOR SOURCES**

CATEGORY	SOURCE	CURTAILMENT	LOAD	LIMIT CLEANING	PLANNED	PARTIAL	ELIMINATE	REDUCE TO	SHUTDOWN
	TYPE	PLAN	SHIFTING	AND START-UP	PROCESS	SHUTDOWN	NEW BATCH	STANDBY	OR BAN
		DESIRABLE +		OPERATIONS	MOD.'S		STARTS		
<i>Emergency Episode Action Stages --&gt;</i>		1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
POWER GENERATION		X X X	X X X	X X X	X X				
OTHER FUELS	Industrial	X X X		X X	X X X	X X	X X	X X	X
BURNING SOURCES	Commercial	X X X		X X		X X	X X	X X	X
	Processing	X X X		X X		X X	X X	X X	X
INCINERATION	Commercial	X X X				X		X	X
MANUFACTURER *	Continuous	X X X		X X X	X X X	X X		X	X
	Batch Process	X X X		X X X	X X X		X X	X X	X
PROCESSING #		X X X		X X		X			X
AGRICULTURE	Processing ^	X X X		X X	X X X	X X		X	X
	Field Oper. %							X X X	X X X
COMMERCIAL @	Entertainment	X X X		X X		X			X
	Office Work	X X X		X X		X			X
	Business	X X X		X X		X			X
GOVERNMENT	School								X X
	General Office								X X
CONSTRUCTION							X X	X X	
MOD'S = Modifications.									
* Manufacturing includes metallurgical, chemical, petroleum, mineral, mining, etc.									
# Processing includes laundries, dry cleaners, garages, service stations, food preparation, etc.									
@ Commercial includes financial, retail stores, entertainment, office wholesalers, restaurants, etc.									
^ Agricultural processing includes milling, and food and feed supplement processing.									
% Agricultural field operations include field burning, spraying, dusting, and plowing.									
+ Category size and emissions production will determine which major sources must file an Emergency Episode Action Plan with the Department.									

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#### **9.7.5 Emission Reduction Actions for Priority II AQCRs**

The Department may require additional sources, including those located within Priority II AQCRs, to submit an EEAP similar to sources located within a Priority I AQCR. The Department shall notify sources of any changes to these requirements.

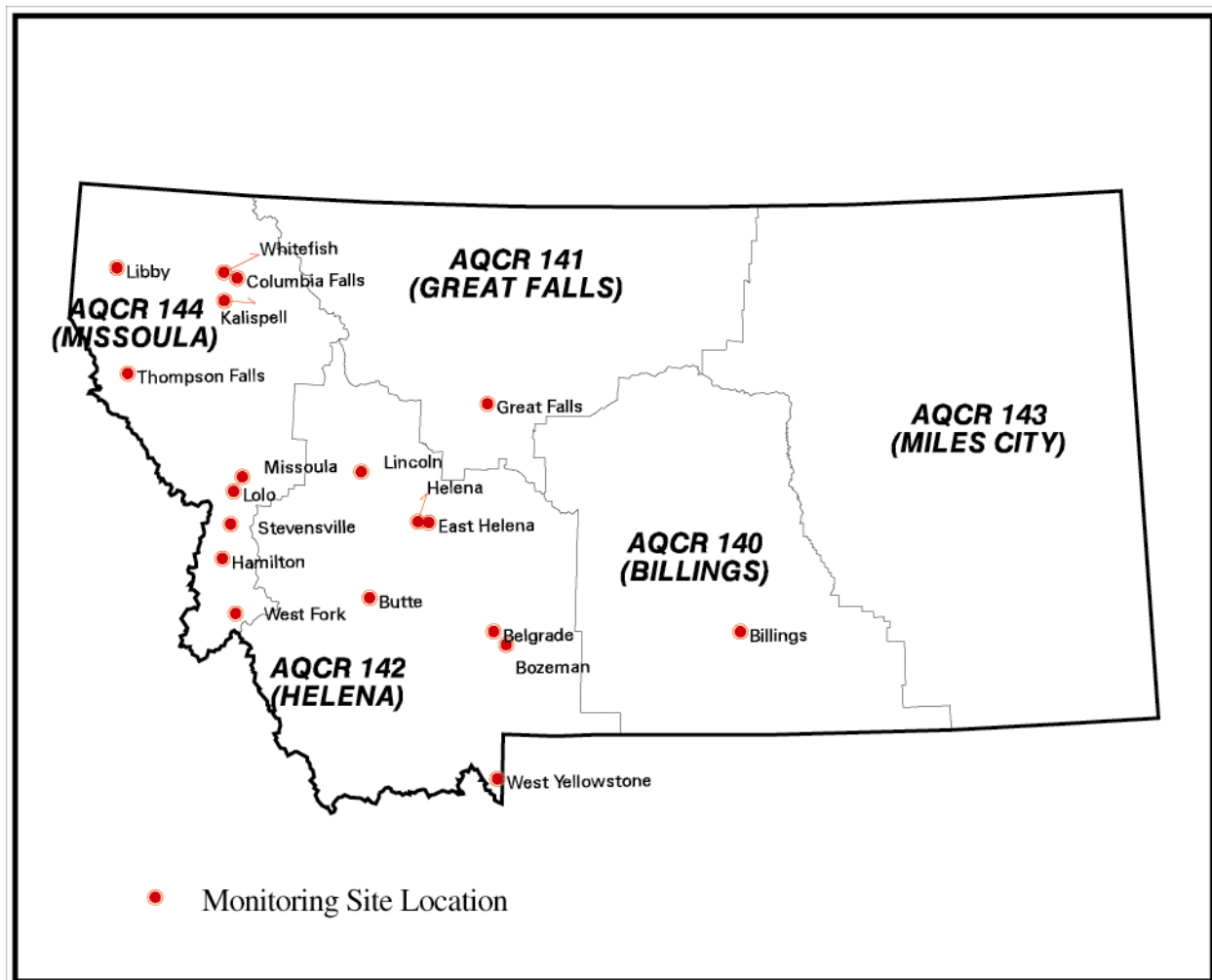
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#### 9.7.6 Emergency Operations

- 1) **Surveillance for Priority I and II AQCRs:** The emergency episode surveillance network is comprised of the monitoring sites designated as either State and Local Air Monitoring Station (SLAMS) or Special Purpose Monitoring station (SPM). The emergency episode surveillance network is comprised of both continuous analyzers and manual filter-based reference method samplers. Figure 9.7.6.A shows communities where monitoring sites are currently located.
- 2) **Meteorological Forecasting for Priority I and II AQCRs:** In the event of an air pollutant emergency episode, the Department meteorologist will conduct weather forecasting in each AQCR as required. The meteorologist shall gather weather information from a variety of public and private sources.
- 3) **Field Surveillance for Priority I and II AQCRs:** During an air pollutant emergency episode, Department compliance and inspection personnel shall inspect major sources to determine compliance to any applicable EEAP requirements. Section 6 below details compliance and inspection communication requirements.
- 4) **Data Acquisition for Priority I and II AQCRs:** Accurate air monitoring data is essential for decision-making during an air pollutant emergency episode. Data must be quality-assured in order to declare a Stage 1 Alert, Stage 2 Warning, or Stage 3 Emergency. Air monitoring sites determined pursuant to the Department's annual network review process represents the current air quality monitoring surveillance network. However, under stagnation forecasts, the Department may increase observation frequencies at the monitoring sites.

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**FIGURE 9.7.6.A**  
**EMERGENCY EPISODE SURVEILLANCE NETWORK**



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During an air pollutant emergency episode, the Department will measure PM-10, SO<sub>2</sub>, and CO concentrations using continuous analyzers. This data will be logged on the data summary sheet (Figure 9.7.6.B) as a permanent record. The data will be communicated to the Department's meteorologist located in Helena. The Department shall collect and evaluate air quality and meteorological data. The Department shall distribute this information to monitoring personnel, industry, and city-county health departments as it becomes available.

- 5) **Meteorological Surveillance for Priority I and II AQCRs:** When meteorological conditions indicate stagnant conditions, the Department meteorologist will review meteorological monitoring data for the designated emergency episode area. If conditions warrant, the Department may gather additional meteorological data to supplement stagnation forecasting procedures. Additionally, the Department may gather special temperature soundings and wind measurements. For localized weather forecasts, the Department meteorologist may obtain data as described in Figure 9.7.6.C.

In addition, the Department shall construct wind isopleth maps and air pollutant roses to help determine heavy air pollutant contributors. The Department shall maintain close coordination with city-county health departments to facilitate efficient representation of meteorological data for designated emergency episode areas. The Department meteorologist will review the current air quality surveillance network for sampling modifications or re-location of equipment. The Department meteorologist will keep the forecast and surveillance records updated for trend analysis.

- 6) **Communications for Priority I and II AQCRs:** The Department shall make a public announcement whenever it determines that an emergency episode action stage has occurred. The Department has a communication procedure for transmitting status reports to the public and when applicable, initiating emergency emissions control actions. This procedure provides for contact with public officials, including: (1) the U.S. Environmental Protection Agency (EPA) Regional Office; (2) EPA's Emergency Operations Control Center located in Research Triangle Park, North Carolina; (3) major emission sources; (4) public health agencies; (5) emergency response agencies; and (6) the news media.

**DECLARATION:**

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Stage of Episode:

Justification: \_\_\_\_\_

Originally Declared: (date/time)\_\_\_\_\_ By Whom:

Forecast in Effect Until: (date/time)

AQCR(s) Affected:

**AIR QUALITY DATA SUMMARY:**

Site*	Pollutant	Measurement	Measurment Period	Date/Time	Remarks
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\*Record highest measurements first.

Effects of Control Actions Already Initiated:

Observations:

Other Information to be Distributed:

Sheet Completed: (date/time)\_\_\_\_\_ Prepared by:

Superseded: (date/time) \_\_\_\_\_ Approved by:

New Status:

**FIGURE 9.7.6.B**

**DATA SUMMARY SHEET  
MONTANA METEOROLOGICAL AIR QUALITY DATA SUPPLEMENT**

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Date:  
Location:

**AIR POLLUTION POTENTIAL SHEET**

<b>I.</b>	<b>TEMPERATURES (°F)</b>	<b>URBAN AREAS</b>	<b>RURAL AREAS</b>
A.	Maximum Yesterday:	_____	
B.	Minimum This Afternoon:	_____	
C.	Maximum This Afternoon:	_____	
<b>II.</b>	<b>MIXING HEIGHT (meters)</b>		
A.	Maximum Yesterday:	_____	
B.	Minimum This Morning:	_____	
C.	Maximum This Afternoon:	_____	
D.	Minimum Tomorrow Morning:	_____	
E.	Maximum Tomorrow Afternoon:	_____	
<b>III.</b>	<b>INVERSION DATA (morning temperatures)</b>		
	<b>URBAN AREAS</b>	<b>RURAL AREAS</b>	
	At Base:      At Top:      Tx to Break:	At Base:      At Top:      Tx to Break:	
1.*	_____	_____	_____
2.	_____	_____	_____

\*1. Surface; 2. Aloft

**FIGURE 9.7.6.C**

**LOCALIZED WEATHER FORECAST FORM**

<b>IV.</b>	<b>WINDS</b>	<b>URBAN AREAS</b>	<b>RURAL AREAS</b>
A.	Surface at 10:00 a.m. LST:	_____ knots	_____ knots
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B.	Surface Forecast:	_____ knots	_____ knots
C.	Morning AVW (actual):	_____ m/sec.	_____ m/sec.
D.	Afternoon AVW (forecast):	_____ m/sec.	_____ m/sec.
E.	Yesterday's Observed AVW (noon):	_____ m/sec.	_____ m/sec.
	(6:00 p.m. – 7:00 p.m.):	_____ m/sec.	_____ m/sec.

**V. CLOUDINESS**

Amount (scale 0 - 10)

A. Today (7:00 a.m.. until 7:00 p.m.):  
B. Tonight (7:00 p.m. until 7:00 a.m.):

**VI. VENTILATION**

A. This Afternoon (AVW x MXHT): \_\_\_\_\_

**VII. INDEX**

A.	This Morning (actual):	_____	_____
B.	This Afternoon (forecast):	_____	_____
C.	Tomorrow Morning (forecast):	_____	_____
D.	Tomorrow Afternoon (forecast):	_____	_____

WHERE: Tx = maximum temperature (F)  
LST = local standard time  
AVW = average ventilation wind through the mixing layer  
m/sec = meters per second  
MXHT = mixing height (feet)

**FIGURE 9.7.6.C (cont.)**

**LOCALIZED WEATHER FORECAST FORM**

**6) Communications for Priority I and II AQCRs (continued from page 9.7.6 (3)):**

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During an air pollutant emergency episode, the Department staff in Helena shall manage communications, data processing, and the notification of appropriate agencies and personnel. During an air pollutant emergency episode, a 'Control Center' will be established within the Department and staffed by Department personnel, city-county health department personnel, and/or industry representatives. The Department may ask other specialists, such as physicians, to volunteer their services during more serious emergency episode stages. In general, specialists may recommend appropriate actions, as well as assist in the interpretation of air quality data, meteorological factors, public health effects, and engineering considerations.

Department staff, except those who have field responsibilities such as technicians, field inspectors, and compliance and inspection personnel, shall provide support to the Control Center. The Department shall determine work schedules to keep the Control Center staffed on a 24-hour basis during the serious emergency episode stages. Following each air pollutant emergency episode, the Department shall assemble a multi-agency team to prepare a post-event report for general distribution.

The Department shall communicate over standard telephone lines, facsimiles, and personal computers with Internet capabilities. The Department may install dedicated telephone lines to assure communications with such organizations as the major sources of pollution and EPA. The Department shall equip the Control Center with standard office items and personal computers with Internet capability.

If necessary, the Department shall request monitoring assistance from city-county health departments. If the Board of Environmental Review has delegated to a local air pollution control program authority to institute actions pursuant to an emergency episode, that agency may not institute a local EEAP unless it is at least as stringent as the Department's EEAP.

The Department shall engage in decision-making following attainment of any of the three levels of episode prevention action stages as outlined in section 9.7.3. The Department

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shall conduct communication activities as follows:

- A. **FORECAST:** The Department shall initiate an internal watch when the Department meteorologist identifies atmospheric stagnation conditions.
- B. **STAGE 1 - ALERT:** Monitoring site operators shall notify the appropriate officials that high concentrations of SO<sub>2</sub>, CO, and/or PM-10 are being recorded.

Communication actions that support a Stage 1 Alert are as follows:

- 1) Monitoring site operators advise Department staff of the Stage 1 Alert.
  - 2) Department meteorologist is advised of the situation. Department meteorologist makes the appropriate analysis and recommendations.
  - 3) Department advises local and federal air pollution control agencies of the situation.
  - 4) Department appropriates additional monitoring equipment for use if air pollutant concentrations worsen.
  - 5) Department alerts the air pollution control laboratory for possible increased sampling activities. To expedite data collection, the Department shall request monitoring site operators to weigh particulate matter sample filters.
- C. **STAGE 2 - WARNING:** Upon the initiation of a Stage 2 Warning, the Department shall begin the process of notifying the appropriate public health personnel, and key public and private personnel that a potential air pollutant emergency episode exists.

Communication actions that support the Stage 2 Warning are as follows:

- 1) Appropriate Department staff is put on 24-hour emergency status.

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- 2) Department meteorologist shall issue a forecast regarding the duration of the air pollutant emergency episode.
- 3) Department shall notify local and federal air pollution control agencies of the Stage 2 Warning and advise them to alert key individuals within their jurisdiction(s).
- 4) Department shall notify the Governor's office that a potential air pollutant emergency episode exists.
- 5) Department public information officers are advised to notify the appropriate news media and to distribute the latest advisories.
- 6) Department shall make basic decisions concerning whom to notify, including:

Elected Officials	Police Departments
City Managers	Fire Departments
Civil Defense	Hospitals
Highway Patrol	Key Industries
Sheriff Departments	Disaster & Emergency Services

- 7) Department shall request participation from the public and industry as outlined below:
  - a. The public is requested to car pool, use public transit, and drive only in cases of emergency.
  - b. Lowering home heating to 65 °F, if possible, and/or shutting off home air conditioners and/or switching to clean burning fuels when an alternate heating system is in place (switch from wood or coal to electricity or natural gas).
  - c. Curtailment of nonessential power use (air conditioners, appliances, electric irons, personal computers, televisions, etc.).
  - d. Curtailment or shutdown of nonessential industries which are contributing to air pollution and/or operating under a variance.

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- e. Cutback of heating plants or air conditioning in commercial buildings.
- f. Staggering closing hours of core city offices and commercial buildings.

- D. STAGE 3 - EMERGENCY:** When monitors measure high ambient concentrations of air pollutants as outlined in Section 9.7.3 (4), the Department shall immediately notify the Governor and declare a Stage 3 Emergency.

Following Governor notification, the Department shall take the necessary precautions to protect public health as set forth in 75-2-402, MCA, "Emergency Powers." These precautions include, but are not limited to, ordering a halt or curtailment of any operations, activities, processes, or conditions the Department believes are contributing to the air pollutant emergency episode.

- E. TERMINATION:** Once the Department declares an emergency episode action stage is declared, it will remain in force until the concentration levels for that stage are no longer met. At such time, the next lower action stage will be commenced. This procedure will continue until ambient concentrations of air pollutants decrease below threshold concentrations at which time the emergency actions terminate.

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#### **9.7.7 Source Inspection**

During an air pollutant emergency episode, Department compliance and inspection personnel shall determine whether sources are in compliance with any applicable EEAPs.

In emergencies, the Department may utilize normal compliance and inspection procedures, emphasizing rapid response.

The Department shall use all available means to verify compliance. Violations may be traced through monitoring site measurements, but conclusive evidence must be obtained at the point of emission. The Department may be compelled to enter the premises of a suspected violator with necessary legal documents and conduct testing with portable continuous emissions monitors.

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#### **9.7.8 Timetables for Completion of Episode Plan and Interim Procedures**

The Department shall require all major sources located in Priority I AQCRs to submit an EEAP according to a timetable developed by the Department following an AQCR Priority I re-classification. During the interim period following Priority I re-classification, the Department shall request major sources to take voluntary emissions abatement actions during an air pollutant emergency episode. If voluntary requests for emissions reductions prove inadequate, the Department may initiate the Emergency Procedures as set forth below:

*75-2-402. Emergency procedure. (1) Any other law to the contrary notwithstanding, if the department finds that a generalized condition of air pollution exists and that it creates an emergency requiring immediate action to protect human health or safety, the department shall order persons causing or contributing to the air pollution to immediately reduce or discontinue the emission of air contaminants. Upon issuance of this order, the department shall fix a place and time within 24 hours for a hearing to be held before the board. Within 24 hours after the commencement of the hearing and without adjournment, the board shall affirm, modify, or set aside the order of the department.*

*Mont. Code Ann. §75-2-402.*

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**APPENDIX A**

**EMERGENCY EPISODE AVOIDANCE PLAN**

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**EMERGENCY EPISODE AVOIDANCE PLAN**

**STAGE 1 - ALERT**

**PART A. GENERAL CURTAILMENT:**

1. No persons may conduct open burning of tree waste, vegetation, refuse or debris in any form.
2. The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12:00 p.m. and 4:00 p.m.
3. Persons operating fuel-burning equipment requiring boiler lancing or soot blowing shall perform such operations only between the hours of 12:00 p.m. and 4:00 p.m.
4. Persons operating motor vehicles should eliminate all unnecessary operations.
5. Persons heating homes or commercial buildings with wood or coal should switch to alternative fuels such as propane, natural gas, or electricity, if the buildings are so equipped.

**PART B. SOURCE CURTAILMENT:**

In addition to the curtailments outlined in Part A above, all persons responsible for the operation of a source of air pollutants shall take all required control actions for this Stage 1 Alert as listed below:

SOURCE OF AIR POLLUTANTS	CONTROL ACTIONS
1. Coal or oil-fired electric power generating facilities	a. Substantial reduction by utilization of fuels having low ash and sulfur content

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	<ul style="list-style-type: none"><li>b. Maximum utilization of midday (12:00 p.m. to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing</li><li>c. Substantial reduction by diverting electric power generation to facilities outside of the designated emergency episode area</li></ul>
2. Coal and oil-fired process steam generating facilities	<ul style="list-style-type: none"><li>a. Substantial reduction by utilization of fuels having low ash and sulfur content</li><li>b. Maximum utilization of midday (12:00 p.m. to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing</li><li>c. Substantial reduction of steam load demands consistent with continuing plant operations</li></ul>
3. Manufacturing industries of the following classifications:  Primary Metals Industries Petroleum Refining Operations Chemical Industries Mineral Processing Industries Paper and Allied Products Grain Industries	<ul style="list-style-type: none"><li>a. Substantial reduction of air pollutants from manufacturing operations by curtailing, postponing, or deferring production and all operations</li><li>b. Maximum reduction by deferring trade waste disposal operations which emit solid particles, gas vapors, or malodorous substances</li></ul>
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- c. Maximum reduction of heat load demands for processing
- d. Maximum utilization of midday (12:00 p.m. to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing

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## EMERGENCY EPISODE AVOIDANCE PLAN

### STAGE 2 - WARNING

#### PART A. GENERAL CURTAILMENT:

1. No persons may conduct open burning of tree waste, vegetation, refuse or debris in any form.
2. The use of incinerators for the disposal of any form of solid or liquid waste is prohibited.
3. Persons operating fuel-burning equipment requiring boiler lancing or soot blowing shall perform such operations only between the hours of 12:00 p.m. and 4:00 p.m.
4. Persons operating motor vehicles shall reduce operations by the use of car pools and increased use of public transportation and elimination of unnecessary operation.
5. Persons heating homes or commercial buildings with wood or coal shall switch to alternative fuels such as propane, natural gas or electricity, if the buildings are so equipped.

#### PART B. SOURCE CURTAILMENT:

In addition to the curtailments outlined in Part A above, all persons responsible for the operation of a source of air pollutants shall take all required control actions for this Stage 2 Warning as listed below:

#### SOURCE OF AIR POLLUTANTS

#### CONTROL ACTIONS

- |  |  |
|--|--|
| 1. Coal or oil-fired electric power<br>generating facilities | a. Maximum reduction by utilization<br>of fuels having lowest ash and sulfur content |
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	<ul style="list-style-type: none"><li>b. Maximum utilization of midday (12:00 p.m. to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing</li><li>c. Maximum reduction by diverting electric power generation to facilities outside of the designated emergency episode area</li></ul>
2. Coal and oil-fired process steam generating facilities	<ul style="list-style-type: none"><li>a. Maximum reduction by utilization of fuels having the lowest ash and sulfur content</li><li>b. Maximum utilization of midday (12:00 p.m. to 4:00 p.m.) atmospheric turbulence for boiler landing and soot blowing</li><li>c. Make ready a plan of action to be taken if an emergency develops</li></ul>
3. Manufacturing industries which require considerable lead time for shut down, including the following classifications:  Primary Metals Industries Petroleum Refining Operations Chemical Industries Glass Industries Paper and Allied Products	<ul style="list-style-type: none"><li>a. Maximum reduction of air contaminants from manufacturing operations by, if necessary, assuming reasonable economic hardships by postponing production and allied operation</li><li>b. Maximum reduction by deferring trade waste disposal operations which emit solid particles, gases, vapors, or malodorous substances</li><li>c. Maximum reduction of heat load demands for processing</li></ul>
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4. Manufacturing industries which require relatively short lead times for shut down, including the following classifications:
- Primary Metals Industries  
Chemical Industries  
Mineral Processing Industries  
Grain Industries
- d. Maximum utilization of midday (12:00 p.m. to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing
  - a. Elimination of air pollutants from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment
  - b. Elimination of air pollutants from trade waste disposal processes which emit solid particles, gases, vapors, or malodorous substances
  - c. Maximum reduction of heat load demands for processing
  - d. Maximum utilization of midday (12:00 a.m. to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing

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## EMERGENCY EPISODE AVOIDANCE PLAN

### STAGE 3 - EMERGENCY

#### PART A. GENERAL CURTAILMENT:

1. No person may conduct open burning of tree waste, vegetation, refuse, or debris in any form.
2. The use of incinerators for the disposal of any form of solid or liquid waste is prohibited.
3. All places of employment described below shall immediately cease operations:
  - a. Mining and quarrying of nonmetallic minerals.
  - b. All construction work, except that which must proceed to avoid emergent physical harm.
  - c. All manufacturing establishments, except those required to have in operation an EEAP.
  - d. All wholesale trade establishments: i.e., places of business primarily engaged in selling merchandise to retailers, industries, commercial, institutions, or to professionals and wholesalers; or if acting as an agent in buying merchandise for or selling merchandise to such persons or companies except those engaged in the distribution of drugs, surgical supplies, and food.
  - e. All officers of local, county, and state government, including authorities, joint meetings, and other public bodies excepting such agencies which are determined by the chief administrative officer of local, county or state government authorities, joint meetings and other public bodies to be vital for public safety and welfare and the enforcement of the provisions of this EEAP.
  - f. All retail trade establishments except pharmacies, surgical supply distributors, and stores primarily engaged in the sale of food.
  - g. Banks, credit agencies other than banks, securities and commodities

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brokers, dealers, exchanges and services; offices of insurance carriers,

agency and brokers; real estate offices.

- h. Wholesale and retail laundries, laundry services and cleaning and dyeing establishments; photographic studios; beauty shops, barber shops, shoe repair shops.
  - i. Advertising offices, consumer credit reporting, adjustment and collection agencies, duplicating, addressing, blueprinting, photocopying, mailing, mailing list and stenographic services, equipment rental services and commercial testing laboratories.
  - j. Automobile repair, automobile services, and garages.
  - k. Establishments rendering amusement and recreational services, including motion picture theaters.
  - l. Elementary and secondary schools, colleges, universities, professional schools, junior colleges, vocational schools, and public and private libraries.
- 4. All commercial and manufacturing establishments not included in this order will institute such actions as will result in maximum reduction of air pollutants to the extent possible without causing injury to persons or damage to equipment.
  - 5. The use of motor vehicles is prohibited except in emergencies with the approval of local or state police.
  - 6. All persons heating homes or commercial buildings with wood or coal shall switch to alternative fuels such as propane, natural gas, or electricity, if the buildings are so equipped.

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**PART B. SOURCE CURTAILMENT:**

In addition to the curtailments outlined in Part A above, all persons responsible for the operation of a source of air pollutants shall take all required control actions for this Emergency Stage as listed below:

SOURCE OF AIR POLLUTANTS	CONTROL ACTIONS
1. Coal or oil-fired electric power generating facilities	<ul style="list-style-type: none"><li>a. Maximum reduction by utilization of fuels having lowest ash and sulfur content</li><li>b. Maximum utilization of midday (12:00 p.m. to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing</li><li>c. Maximum reduction by diverting electric power generation to facilities outside of the designated emergency episode area</li></ul>
2. Coal and oil-fired process steam generating facilities	<ul style="list-style-type: none"><li>a. Maximum reduction by reducing heat and steam demands to absolute necessities consistent with preventing equipment damage</li><li>b. Maximum utilization of midday (12:00 p.m. to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing</li><li>c. When applicable, taking the actions called for in the EEAP</li></ul>
3. Manufacturing industries of The following classifications:	<ul style="list-style-type: none"><li>a. Elimination of air pollutants from manufacturing operations by ceasing, curtailing,</li></ul>

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- postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment
- Primary Metals Industries  
Petroleum Refining Operations  
Chemical Industries  
Mineral Processing Industries  
Grain Industries  
Paper and Allied Products
- b. Elimination of air pollutants from trade waste disposal processes that emit solid particles, gases, vapors, or malodorous substances
- c. Maximum reduction of heat load demands for processing
- d. Maximum utilization of midday (12:00 p.m. to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing

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